

CENTRAL INTELLIGENCE AGENCY

## INFORMATION REPORT

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Agenda of Conference

1. The official ceremonies of the Soviet astronomical conference at Leningrad, marking the opening of Pulkovo Observatory, began on the evening of 20 May 1954 and were held in the building of the Academy of Sciences. Among the speakers were M.S. Zyrev and Nikolay N. Pavlov, who delivered their speeches in Russian.<sup>1</sup> All speeches dealt with the historical background and position of Pulkovo Observatory and were extremely dull.
2. On 21 May, several hundred delegates assembled at Pulkovo in the main observatory. A tremendous number of Soviet photographers and newsreel men were present. Greetings were read from the president of the International Astronomical Union (IAU). All delegations, including those from each Soviet republic, made speeches. An hour and a half was allowed for delegates to inspect the observatory (see paragraphs 7-9 below).
3. On 22 May, further speeches on Pulkovo were given in the Academy of Sciences building. There were no talks along specific professional lines. A formal banquet for approximately 100 persons was given at the Astoriya Hotel in the evening.
4. Symposia on variable stars and astrometry were held from 24 to 26 May. At least 50 percent of the discussions were routine, and no new ideas or startling developments were presented. The bulk of the discussions and papers were in Russian or some other Slavic language.
5. From a professional standpoint, the conference was poorly organized and a complete waste of time. All the Western delegates were disappointed in this respect and were given no opportunity to project their own ideas.

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Soviet Astronomical Personalities

6. Following are [redacted] Soviet astronomical personalities:

a. Vasiliy G. Fesenkov [redacted]

b. Ye. K. Kharadze [redacted]

c. Boris V. Kukarkin [redacted]

d. Aleksandr A. Mikhailov [redacted]

e. Aleksandr Ya. Orlov [redacted]

f. Grigoriv A. Shavn [redacted]

g. I. S. Shklovskiy [redacted]

Pulkovo Observatory

7. Pulkovo is a tremendous establishment with a staff of about 70 so-called scientists, who do measuring, observations, etc., and a large number of other personnel. The observatory has its own apartments for staff members and a hotel for visiting astronomers. The observatory appears to be well constructed but in a luxurious and ostentatious style similar to the Moscow Metro. The location is on a slope, which could very well subject observations to air turbulence.
8. There were temperature indicators on all measuring instruments, such as meridian circles and transit instruments. Wires were connected up all over these instruments. The Soviets indicated that they consider these temperature readings of outstanding importance in computing their data.
9. Pulkovo makes photo-electric observations of the color of stars. The Soviets indicated that they have made one color unit in the infra-red beyond 12,000 angstroms. This is perplexing, as there are no known satisfactory emulsions to carry out such a step. Evidently, the Soviets have somehow succeeded in transferring star light by photo-electric means from infra-red into visual. The Soviets would not say what procedure they used.

Lomonosov Institute

10. A new observatory is being built on the grounds of Lomonosov University in Moscow for use as a training observatory and is expected to open in either September or October 1954. The office and library of the Sternberg Observatory are to be moved to Lomonosov, and the Sternberg Observatory and instruments will be moved to a new location about 30 or 40 kilometers outside of Moscow.

Sternberg Institute

11. Sternberg Institute in Moscow has a very systematic and impressive card cataloguing method. The carding is kept up to date, and the following items are covered: stellar parallax, radio velocities, variable stars, new stars, novae and super novae, old variable stars outside the Milky Way, and photographic observations of variable stars. Outside the

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institute, there is a small Maksutov telescope of about 50 centimeters and an excellent measuring machine for two coordinates, which does not use screws; instead, measuring rods of very modern design are used. Photometers appear to be old-fashioned but are based on the photo-electric technique.

#### Soviet Astronomical Methods and Equipment

12. Inspection and discussion of the Soviet photo-electric method and equipment proved that they are not so good as claimed by the Soviets.
13. The Soviets have very little equipment for sun observations and take only routine measures. They did not indicate that they do any stellar observations. In addition, the Soviets always discuss material in this field originating from outside the USSR and make no mention of their own work. Only routine radio telescope equipment was observed, and nothing new or of outstanding importance was seen.
14. With respect to lenses and astronomical telescopes, there was newly constructed equipment on display at Pulkovo. Generally, only routine equipment was observed, which appeared no better than what is being used in the West. All optics are being manufactured in Leningrad; Dmitriy D. Maksutov is responsible for practically all design of new types. There will soon be a metallic mirror telescope at the Crimean Observatory; at present, there is a 50-inch parabolic glass mirror telescope at the observatory.
15. No electronic computers were observed. Computers at Sternberg Institute are all old-fashioned, small, and unimportant in design and capability. Time service clocks are of no significance and are not up to the standard of Western instruments.

#### Soviet Plans for Observing the Solar Eclipse on 30 June 1954

16. The Soviets have a total of 24 stations from which to observe the solar eclipse on 30 June 1954. The stations will be spread along a line running from Riga to the Caucasus. There will be a station at Pyatigorsk in the Caucasus and another near Kharkov. A group from the Sternberg Institute, including Miss Alla Masevich and Paraytskiy (fnu), will man the Pyatigorsk station. Professor Bogoslavskaya (fnu) has equipment in place on the roof of Sternberg Institute to observe the eclipse. Equipment includes a coelostat, which is to be used for making colored photos of the corona. The instrument is new, mechanically well made, and similar to what is currently in use in Western Europe. On the grounds of Sternberg Institute, there are new instruments for measuring the outer corona. The Soviets [redacted] and the Czechs plan to be stationed there as well.

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#### Possible Soviet Expedition to the Southern Hemisphere

17. Since 1932, the Soviets have been working on a new fundamental catalogue which will use the method of minor planets for the determination of the equinoctial points and extra-galactic nebulae as points of reference. The catalogue cannot be completed without data from the Southern Hemisphere, and the possibility of sending an expedition [redacted] has been frequently discussed in Soviet literature. At the conference, the Soviets openly stated that they had no notion of sending an expedition to the Southern Hemisphere and that it was quite impossible for them to do so.

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Comments

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1. Zverev was previously reported to be the deputy director of Pulkovo Observatory in 1952. Pavlov was a member of the Presidium of the Astronomical Council, Institute of Theoretical Astronomy, Department of Physico-Mathematical Sciences, Academy of Sciences, in 1950.
2. Fesekov is director of the Institute of Astrophysics, Kazakh Academy of Sciences.
3. As of 1952, Kharadze was director of the Abastumani Astrophysical Observatory.
4. As of 1952, Kukarkin was director of the Sternberg Institute of Astronomy in Moscow.
5. Orlov is reported to be the director of the Crimean Astrophysics Observatory.
6. As of 1950, Shayn was director of the Crimean Astrophysics Observatory.
7. Shklovskiy is a member of the Sternberg Institute.
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